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AN ADDITIONAL RECORD OF *MYONYCTERIS RELICTA* BERGMANS, 1980, FROM TANZANIA (MAMMALIA: CHIROPTERA)

DUANE A. SCHLITTER
Associate Curator, Section of Mammals

SUZANNE B. MCLAREN
Curatorial Assistant, Section of Mammals

ABSTRACT

A fourth specimen of the East African relict collared fruit bat, *Myonycteris relicta* Bergmans, 1980, is reported. This specimen, from the Nguru Mountains of central Tanzania, supports the contention of a previous connection between East African mountain forests with central African counterparts. External and cranial measurements of the new specimen are compared with other reported *M. relicta* and a sample of *M. torquata*.

In the course of checking the old holdings of Megachiroptera in the Section of Mammals, a unique specimen was found among the *Rousettus* and *Myonycteris* in the collection. Closer examination of this bat revealed it to be a specimen of *Myonycteris relicta* Bergmans, 1980.

Standard external measurements were taken from the specimen label. The remaining measurements were taken in millimeters by means of a dial caliper. The cranial measurements given are based on those published by Bergmans (1980:174).

On 19 September 1960, a single adult adult female *Myonycteris relicta* (CM 57685) was captured at 3000 feet elevation in the Nguru Mountains of Tanzania by John Williams and Arthur C. Twomey. This individual is the fourth reported example of the species and extends

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Table 1.—*Selected external and cranial measurements of* Myonycteris relicta *and* M. torquata *from East and Central Africa.*

	Myonycteris relicta				*Myonycteris torquata*	
Measurements	Tanzania: Nguru Mts., 3000 ft. CM 57685 ♀	Kenya: Shimba Hills RMNH 27909 ♂ (holotype)*	Tanzania: Ambangulu, Usambara Mts. ZMB 54936 ♂*	Tanzania: Ambangulu, Usambara Mts. ZMB 54937 ♀*	Northeastern Zaire and adjacent Uganda ♀♀**	Northeastern Zaire and adjacent Uganda ♂♂**
Total length	120	124	—	—	112, 114	102, 130
Tail length	5	9	—	8.3	6, 12	4, 10
Hindfoot length	17	22	20.5	20	18, 22	15, 18
Ear length	17	19	—	19.9	19, 20	18, 18
Forearm length	65.9	69.3	—	75.1	60.3, 64.4	61.8 (60.3–64.6) 6
Tibia length	26.1	26.7	—	29.1	—	—
Third metacarpel length	46.0	49.5	48.9	53.3	—	—
Third digit, first phalanx length	31.5	32.4	33.8	35.8	—	—
Fourth metacarpel length	43.9	46.4	46.4	50.8	—	—
Fourth digit, first phalanx length	25.7	24.7	—	26.5	—	—
Fifth metacarpel length	44.5	46.0	46.6	51.7	—	—
Fifth digit, first phalanx length	20.8	21.9	—	24.3	—	—
Greatest length of skull	35.9	36.4	36.5	39.2	32.5, 33.3	33.3 (33.2–33.5) 3
Condylobasal length	34.9	35.0	34.8	38.9	31.4, 32.1	31.8 (31.1–32.3) 3
Rostrum length	12.8	13.0	13.4	15.1	11.0, 11.5	11.7 (11.4–11.9) 5
Palatal length	19.2	19.6	19.0	21.1	17.2, 18.1	18.2 (18.0–18.4) 3
Breadth of braincase	14.6	14.7	15.9	14.9	12.6, 12.8	13.6 (13.2–14.1) 4

Table 1.—*Continued.*

Measurements	*Myonycteris relicta*				*Myonycteris torquata*	
	Tanzania: Nguru Mts., 3000 ft. CM 57685 ♀	Kenya: Shimba Hills RMNH 27909 ♂ (holotype)*	Tanzania: Ambangulu, Usambara Mts. ZMB 54936 ♂*	Tanzania: Ambangulu, Usambara Mts. ZMB 54937 ♀*	Northeastern Zaire and adjacent Uganda ♀♀**	Northeastern Zaire and adjacent Uganda ♂♂**
Interorbital width	7.0	7.1	7.3	8.1	5.5, 5.6	5.7 (5.3–5.9) 5
Postorbital width	8.5	8.9	9.7	8.2	7.3, 7.9	7.6 (7.0–8.1) 3
Zygomatic breadth	21.1	21.4	—	—	19.4	19.8 (19.3–20.7) 4
Mandibular length	27.6	27.9	28.2	30.4	25.2, 25.9	25.6 (25.1–26.0) 5
Width across upper canines	6.6	6.9	7.1	7.8	6.3	6.5 (6.1–6.7) 5
Length of maxillary toothrow	12.9	13.4	13.3	14.9	11.9, 12.2	12.3 (11.7–12.9) 6
Width across upper molars (M2–M2)	—	10.3	10.5	—	—	9.1 (8.0–9.6) 5
Length of mandibular toothrow (cl–m2)***	13.2	13.6	13.4	14.5	13.2, 13.4	13.7 (13.3–13.9) 5

* Measurements from Table 1, Bergmans (1980:174).
** Measurements from Table 5, Bergmans (1976:201); given are mean, range, and sample size.
*** Measurement of *M. torquata* includes m3.

the known range of the species inland in Tanzania to the Nguru Mountains from the other two places of reported occurrence—Mukanda River, Shimba Hills, Kenya, and Ambangulu, Usambara Mountains, Tanzania. Mensural data for the specimen are given in Table 1.

Externally and cranially this new specimen agrees well with the three individuals reported by Bergmans (1980). Noteworthy characteristics include the absence of the lower third molars, the enlarged

lower third premolar (p4) and upper third premolar (P4), and the lingual inclination of a line through the upper molars and last premolar. In size, the new specimen is smaller than the three reported by Bergmans (1980). See Table 1 for comparison of selected external and cranial measurements.

Several measurements of the new specimen fall within the range of measurements of a sample of *Myonycteris torquata* from Uganda and Zaire (Table 1). This is the closest sample of *M. torquata* to the known records of *M. relicta* (Bergmans, 1976, 1980). Overlapping measurements include forearm (see also Bergmans, 1976:199, 205), width across upper canines, and length of maxillary toothrow. In spite of this, *M. relicta* is larger than *M. torquata*. The nearest localities of record for *M. torquata* are Bwamba Forest, Uganda, and Salujinga, Zambia (Bergmans, 1976).

The Nguru Mountains are a small mountain chain running southwest to northeast at approximately 6° S, 37°30′ E in Tanzania. Available field notes indicate that John Williams collected birds and some mammals at three places in the Nguru Mountains on 19 September 1960. Specimens were collected in the "Manyangu Forest" from 17 to 19 September, in the "east foothills" on 19 and 20 September, and in the "eastern Nguru Mountains" on 19 September. Unfortunately we are not able to say precisely from which of these three sites, or perhaps another one, the *Myonycteris relicta* came, except that it was taken at 3000 feet elevation.

In his description, Bergmans (1980:180) considered *Myonycteris relicta* a species confined to relict forest remnants in East Africa. Its occurrence there was considered another indication of previous corridors connecting these forests with central and western African forest counterparts. Although the type locality, Mukanda River in the Shimba Hills, Kenya, is in lowland forest, few large blocks of forest remain in East Africa except in the remnant forests of the mountainous regions. Such remnant forest is present in the Nguru Mountains and the occurrence of *M. relicta* there supports Bergmans (1980:180) contention. In addition, this specimen would seem to indicate that the species should be looked for in suitable forests in other mountainous regions of southern Tanzania, namely the Rubeho and Uzungwa mountains and perhaps even the Livingstones, Porotos and Mount Rungwe, and adjacent elevated regions of Zambia and Malawi (Keay, 1959). The remnant forests of the mountains along Lake Tanganyika could also harbor this species, as these serve as the connecting link between the southern forest block of Tanzania and extreme southeastern Kenya and comparable forests in Zaire (Moreau, 1952). The southern forests had been effectively separated from western Kenyan counterparts by

an extension of the Somali Arid Zone through central Kenya into northcentral Tanzania (Moreau, 1952:889; Keay, 1959).

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